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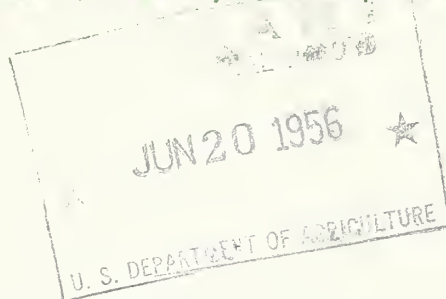
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U.S. DEPARTMENT OF AGRICULTURE, LAND-GRANT COLLEGES, AND COOPERATORS

September 1954



No. 3

Diverted Acres: The 1955 acreage allotment includes all crop acreage allotments established for the farm and the 1953 acreages (or adjusted acreages) of all other crops on the farm except hay, cover crops, green manure crops, pasture, idle cropland, and summer fallow. The logical assumption is that we will see more and more land turned back to grass.

With a billion acres in grass, our Nation's largest crop, no one has ever proclaimed we had a surplus of pasture grass, especially mixtures of high quality grasses and legumes. Grass is a crop, and all it asks is that we

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Cover Crops for Extra Feed: Secretary Benson has urged all agencies to put extra effort into assisting farmers in drought areas in producing and conserving feed for livestock. In this connection he reminded farmers that the Agricultural Conservation Program offers cost sharing for planting cover crops. Payments up to 50 percent of the cost of seedbed preparation, fertilizer, and lime, are available for establishing cover crops. In view of ex-

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Grasslands "Gold" Rush: The editorial on grasslands, quoted below, appeared in the Oregonian of Portland, Oreg., June 26, 1954, and measures up to the one quoted in the last issue of Grassland Progress from the Atlanta Journal: "Even from the main highways the observant traveler through Oregon in recent years must have recognized a new vitality in the grass fields.

"More and more, farmers of the State have applied science to the growing of grass, both for feed and for seed. Hit-and-miss methods many of us remember from childhood have largely given way to selection of grasses best suited to soil, climate, and the use to which a piece of land is to be put. Fertilizers, both commercial and barnyard, are applied with

treat it as a crop. When good seed is used, fertilizer and lime are applied, weeds are controlled and not overgrazed, it is beyond a doubt one of the best if not the best crop to use on the 30-million acres being taken out of other crops.

Our livestock numbers are increasing, and lowered feed costs will mean more efficient production. Since surpluses are piling up from other enterprises, grassland-livestock farmers have an opportunity to produce meat and milk cheaper and at the same time build a soil bank of fertility for future use.

pected shortages of some forages the Secretary urged farmers to order grassland seeds early and plant emergency pasture crops wherever possible. He also praised farmers for making silage of damaged corn and otherwise taking steps to store more-than-normal forage for the winter. Outside drought areas cover crops do not include small grains and are eligible only in excess of normal acreages.

precision as to weight per acre and formula. Water, when it is available, is put on the land either by flooding or sprinkling, according to type of soil and crop.

"These scientific methods cost money. But the outlays are investments that pay big dividends in greater yield per acre. Two or three cattle, sometimes more, may graze where only one was carried before, or a field may provide hay and silage as well as pasturage and increase the number of months a certain plot will provide animal fodder. In some sections of the State grass-seed production is the source of considerable revenue. At present Merion bluegrass, which is particularly good for golf course fairways, appears to be the 'hot' seed-crop grass in southern Oregon.

"Unlike most business outlays, the investments in grassland improvements and management show a quick return. Sometimes within months the money spent is returned several fold in greater production.

"Some of this may be seen by the discerning traveler on the highways. But the fuller picture can only be obtained by traversing the back country roads and hearing the details from the farmers themselves and from the county agricultural agents, who are the men that bring the scientific knowledge from Oregon State College and Government agencies to the man on the land.

"Under sponsorship of the agricultural committee of the Portland Chamber of Commerce there is a campaign 'Grass Is Gold' which seeks to promote the idea of better utilization of the State's farm and grazing lands. Each year a grassman of the year is named for each of the States of Oregon, Washington, and Idaho, and for the entire Northwest region. Valuable prizes are given to stimulate interest.

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South Carolina: South Carolina's "Blanket of Green" program, supplemented by district and State pasture contests, has produced results indicating remarkable progress in grassland farming since World War II. Farm income from livestock and livestock products has grown

But no attempt is made by the Portland men to advise the farmers how to work their farms. That's the job of the scientists connected with the various State colleges.

"It is in beef production that the conversion of grass to gold appears brightest. The growing population of the Nation as a whole and particularly the phenomenal increase in the Pacific coast States, in combination with a constantly rising beef consumption per person, give growing of cattle for meat a promising hue. Beef cattle population in Oregon grew from 675,000 in 1940 to 1,141,000 in 1953.

"The State's great grainfields, producing surpluses year after year, could join the grasslands in achieving this greater utilization of the land to obtain a finished product, if grain prices for livestock feeding were reduced to an economical point.

"Problems remain to be unsnarled, but Oregon is well on its way, with science and imagination toward mining a limitless vein of gold on its grasslands."

from 15 percent of the State farm income in 1946 to 24 percent in 1953, or an increase of 60 percent.

A comparison of grassland acreages in 1946 with 1954 gives a measure of progress:

Grassland crops

Improved permanent pastures.....	250,000	1,260,000
Unimproved permanent pastures.....	1,400,000	1,133,000
Annual grazing crops.....	100,000	650,000
Small grain (grazing, hay, silage).....	200,000	630,000
Improved hay crops.....	400,000	680,000
Supplementary grazing crops.....	70,000	110,000

Total acreage

1946 acreage

1954 acreage

250,000	1,260,000
1,400,000	1,133,000
100,000	650,000
200,000	630,000
400,000	680,000
70,000	110,000
2,420,000	4,463,000

Not only has South Carolina's grassland acreage almost doubled during the past 8 years, but the amount, quality, and carrying capacity have much more than doubled. Even with much lower cattle prices, farmers are still building

new fences and improving pastures. Coastal Bermuda-grass acreage is increasing rapidly in all 46 counties. This grass promises to become the most important and most profitable permanent pasture grass in South Carolina.

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Kentucky Grasslands: Kentucky, a State long known for its famous bluegrass and fine horses, created widespread interest a few years ago with the discovery of Kentucky-31 fescue, which helped in its Kentucky Green Pasture Program, and now it comes forth in another progressive move.

"More acres of better alfalfa" is the major goal of the University of Kentucky and the Kentucky Bankers Association, for 1955. Alfalfa was decided upon as the grassland crop to push for use on diverted acres because of its versatility as a legume that improves soil, furnishes high quality grazing and forage, and

withstands droughts. It is also seen as another way to aid in lowering the cost of producing livestock and livestock products.

The Kentucky Bankers Association not only works closely with the University of Kentucky on agricultural programs at the State level, but local banks at the county level cooperate with county agents and other agricultural agencies by aiding in establishing test demonstrations, inserting educational advertisements in local newspapers, assisting in holding tours, and otherwise encouraging their farm patrons to adopt improved farm practices.

Even though much of the State is underlain

with minerals, a source of the stamina in its racehorses in the past, soil testing is high on the priority list of efficient farm practices in Kentucky.

Last year the college of agriculture received reports from over 37,000 soil tests. Fifty-eight percent of these were strongly to moder-

ately acid, showing need for 2 or more tons of lime per acre, 52 percent were low in phosphorous, and 65 percent low in potash. Agricultural leaders constantly remind farmers that "it's always the right time to test soils and apply needed lime and fertilizers."

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Wisconsin Briefs: "High quality pasture, hay and grass silage plus good cattle and management are the building stones for low cost production. What is good pasture? A good high quality pasture might be defined as any mixture of immature grasses and/or legumes growing in such abundance that a cow can graze her fill in an hour's time and look for a place to lie down and start converting this high quality pasturage into milk or meat.

"High quality in roughage is the goal regardless of the method used. It is poor economy to spend money for lime, fertilizer, seed, machinery, labor, and fuel to grow a good crop and then to lose 30 to 40 percent of its feeding value in harvesting. Such losses are normally experienced in the field curing of hay through the loss of leaves. Grass silage and/or mow curing are both good methods to use in reducing

the leaf and feed losses as well as improving the quality of feed."

The Wisconsin Extension Service, with the cooperation of eight other agencies and the Governor of the State, launched a fall pasture renovation program. The stated aim is to increase pasture production 3 to 5 times on the 4 to 5 million acres of permanent pastureland in the State, thus helping farmers reduce their cost of producing dairy and livestock products. Other agencies cooperating in the fall pasture renovation campaign are the Wisconsin Agricultural Stabilization and Conservation Committee, Wisconsin Board of Vocational and Adult Education, Farmers Home Administration, Soil Conservation Service, Wisconsin Grasslanders, Wisconsin Conservation Department, Wisconsin Grassland Farming Contest Committee, and the Agricultural Committee of the Wisconsin Bankers Association.

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"Lay Off the Grass:" The July issue of the USDA Agricultural Research carries this catchy but timely warning to grasslanders who have been overgrazing their pastures. Grass is compared to Samson's locks, the Biblical hero having lost his strength when his spouse had his locks shorn. And he did not regain his prowess again until his hair grew out. So with grass, the scientist proclaims. It is shown that if too much of the grass' top growth is removed by grazing or mowing it closely, the roots will quit growing until the tops recover.

The data from Beltsville show that with a

single clipping of 50 percent of the foliage, 2 to 4 percent of the roots stopped growing for 14 days. When 90 percent of the foliage was removed root growth was completely halted for 17 days, and only 60 percent of the roots were active after 33 days. Removing 40 percent or less of the growth did not halt root growth.

It is obvious that heavy removal by clipping or overgrazing is a poor conservation practice. The plants thus weakened are less able to resist erosion and grazing, as well as drought, cold, and disease.

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New England Grasslands: "Too much rain" might sound ironic in a year when most of the Nation has been in the throes of a severe drought, but many grassland farmers in New England have actually had too much rain, even for grass. With the increased use of grass silage, farmers in that area usually put up "first cutting" as silage and profit from so doing, as rains have in past years caused much damage to early-cut hay. This season, however, with no letup in weather, the "second cut" is resulting in much low quality hay.

The judging of the New England Green Pasture Contest, which is sponsored jointly by the Federal Reserve Bank of Boston and the land-grant colleges in the six States, is now under

way. Three top winners in each of the States have been selected, and from these 18 one top contender in each State will compete for the grand prize. The 1954 winner will be announced at the Roundup in Springfield, Mass., on September 17.

"Zero" grazing, say Massachusetts University dairymen, might sound like next to nothing to some folks, but it is one of the best ideas to come into milk-production business in a long while. Zero grazing is the method of cutting and hauling fresh grass to the cows every day instead of turning them out to pasture. It gives continuous flow of milk and prevents daily fluctuations that often result when cows are allowed to roam the pasture. It saves loss from tramping; saves wear and tear of the

cows, especially when the distance to the pasture is great; allows more total feed from a given area, and the cows usually consume more feed on zero grazing than when turned out to pasture. And more feed consumed usually means more milk.

Strip (sometimes called New Zealand) grazing is another modern method of grazing that provides cows with fresh pasture every day. The electric fence is used to divide the field into strips that provide enough pasture for one day's feed for the herd.

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Arizona--Grassland Fertilizers: Superphosphate, ammonium phosphate, and ammonium nitrate fertilizers were applied to a desert grassland type of vegetation at rates of 100, 200, and 400 pounds of fertilizer per acre. Various responses were obtained under the summer rainfall of less than 6 inches during the study period. The application of superphosphate gave significant increases in available phosphate in the soil at all rates, and with the 400-pound rate, in phosphorous content of curly mesquite and spruce-top grama. Ammonium nitrate produced significant increases

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Prussic Poisoning From Sorghum: Disaster struck the dairy herd at the Oakley, Miss., Training School recently when 55 cows broke into a field of young sorghum. Twenty-two cows were dead when veterinarians arrived and began treatment. All treated animals survived.

Hydrocyanic or prussic acid poisoning, according to authorities, is lethal and rapid in action; death results in a short time after the animal consumes the plant. Some of the important plants in the South that contain this poison at certain stages include Sudangrass, sorghums, and Johnsongrass. The poisoning acid seems to form when normal plant growth is interrupted by drought, frost, dew, or wilt.

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Where neither of the above-mentioned systems is used, the next most used modern method is rotation grazing. Where the rotation system is followed, clipping is necessary to help keep more tender grass available.

Along with other improved grassland practices farmers are keeping up a high rate of fertilization based on soil tests; installing modern machinery in hay and silage making; modern barn cleaners, and other labor-saving practices.

in soil nitrate, and in crude protein content of curly mesquite and spruce-top grama; and apparent increases in forage production and green-feed period of the grasses. The addition of ammonium phosphate gave significant increases in soil nitrate and in crude protein content of curly mesquite and spruce-top grama; and apparent increases in forage production, and in green-feed period of the grasses. These increases were, with the exception of the green-feed period, greater than those produced by ammonium nitrate treatments that contained the same amount of nitrogen.

The action of the poison suspends blood-cell activity, and as a result oxygen is not taken from the blood and the animal dies of suffocation.

In the case mentioned above the sorghum plants eaten by the animals were only 3 weeks old. Shortly after planting a good rain had brought the plants up and growth was rapid; but unusually dry, hot weather followed, creating the condition for poison development. Intravenous injections were given by veterinarians to all animals showing any signs of life. Response was quick and many of the animals were back on foot in 20 minutes. Time is important in a case of this nature, and quick treatment is of the essence.

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GRASSLAND PUBLICATIONS (Copies available from issuing agency. Please do not write to us for copies.)

Kentucky Extension Service: Ext. Leaflet 137, Starting and Managing Permanent Pastures in Kentucky.

Massachusetts Extension Service: Ext. Leaflet 150, Forage Crops: Growing, Grazing, Harvesting.

Massachusetts Experiment Station: Bul. 477, Grass Silage: A Reappraisal.

Mississippi Experiment Station: Bul. 507, Pastures for Dairy Cattle, A summary of Three Years Grazing Trials.

North Dakota Extension Service: Cir. A-195, Managing Irrigated Pastures.

Oklahoma Experiment Station: Bul. B-425, Turf Grasses, Their Development and Maintenance in Oklahoma.

South Carolina Extension Service: Bul. 115, South Carolina Pastures.

Texas Extension Service: Bul. 236, Range Plants of Texas.

Cir. 320, Range Management Versus Drouth.

Cir. 330, More Grass From Controlling Hardwoods With Chemicals.

Cir. 340, Do You Know Your Range Grasses?

Leaflet 180, Prevent Bloat in Cattle and Sheep.

Texas Experiment Station: Bul. 773, Methods of Supplying Phosphorus to Range Cattle in South Texas.

Misc. Pub. 90, Soil Conservation Management System for Beef Production in the Blacklands of Texas.

Sta. Progress Rpt. 1577, Occurrence of Three-Awn Grasses as Affected by Grazing Management.

Sta. Progress Rpt. 1601, Influence of Row Widths and Seeding Rates on Yield and Survival of Tall Fescue Stands.

Sta. Progress Rpt. 1662, The Establishment of Dallisgrass.

Virginia Extension Service: Bul. 194, Good Pastures--Your Cheapest Feed.

Cir. 615, Grow More Feed With a Forage Plan.

Leaflet 1, Sweet Sudan Grass for Summer Pasture.

Washington Extension Service: Bul. 489, Green Manure and Cover Crops.

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Items or publications for Grassland Progress should be addressed to L. I. Jones, Federal Extension Service, United States Department of Agriculture, Washington 25, D. C.